

Established in: 1984



Shri Datta Prasadik Shikshan Prasarak Mandal's,

**Late Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College Arni, Dist-Yavatmal.**

*Affiliated to Sant Gadge Baba Amravati University, Amravati
NAAC Accredited (First Cycle)*

Dr. Kirantai S. Bharti
President

Adv. Siddharth S. Bharti
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Criterion 1 – Curricular Aspects

1.3 Curriculum Enrichment

1.3.2.1: Number of students undertaking project work/field work/ internships

FIELD COLLECTION AND SAMPLING

STUDY TOUR REPORT



“ARUNAVATI RIVER”



DEPARTMENT OF ZOOLOGY

Late Rajkamalji Bharti Arts, Commerce, and
Smt. Sushilabai R. Bharti Science College, Arni
(2022-2023)

FIELD COLLECTION AND SAMPLING

STUDY TOUR REPORT

FIELD COLLECTION AND SAMPLING STUDY TOUR REPORT

ARUNAVATI RIVER

(18/03/2023)

In the Second session of year 2022-23 the **Zoology Department** of Late Rajkamalji Bharti Arts, Commerce & Smt. Sushilabai R. Bharti Science College Arni, Dist. Yavatmal, as per the curriculum activity of B.Sc. IInd Year (Sem -IV) practical Syllabus, the Department of Zoology has organized Field collection and sampling study tour at Arunavati river near “Mahadev Mandir”, Arni and behind the completion and success there are lots of people who made this possible with their valuable guidance and constant support.

A Field collection and sampling study tour is a course combined activity designed to introduced students with sampling in river.

Hence, 18 students of BscIInd (Sem-IV) with 2 professors and one Laboratory attendant arrange a study tour. Inclusion of study tour in our academic curriculum plays a crucial role providing an opportunity to students to execute and enhancing their skills knowledge and competencies with self-development and actualization to be professional future with varied knowledge about different organization and listen to eminent personalities of so on sectors and gain as much knowledge of all working fields should be inculcate in the structure of the educational tour as well as to develop group living and team work which will lead them to any success which is necessary for the students throughout the life.

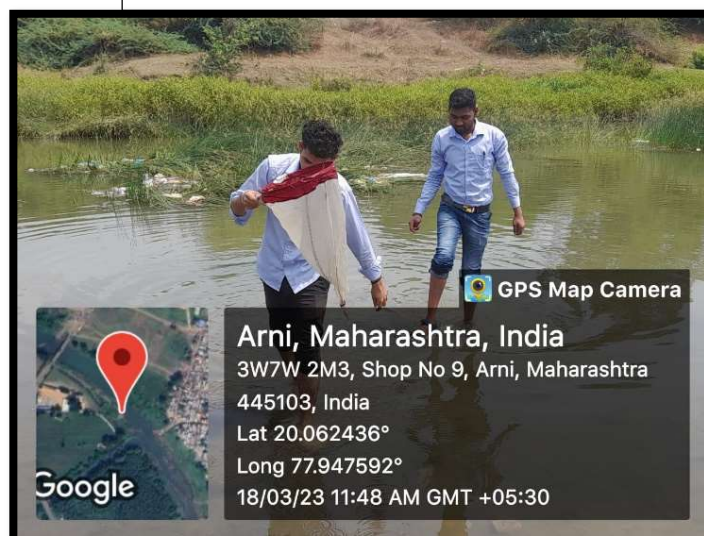
Arunavati river near Mahadev Mandir, Arni located 1.3 kilometers away from Arni, is one of the sampling station for a Field collection and sampling study tour.


Head
Department of Zoology
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College,
Arni, Dist. Yavatmal


Principal
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College,
Arni, Dist. Yavatmal



Professor while boosting knowledge of students.



Boy Students of BSc IInd collecting Zooplanktons.



Girl Students of BSc IInd collecting Zooplanktons.



LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI
R. BHARTI SCIENCE COLLEGE, ARNI, DIST-YAVATMAL

DEPARTMENT OF ZOOLOGY

Session: 2022-23

NAME OF ACTIVITY: FIELD COLLECTION AND SAMPLING OF WATER FROM ARUNAVATI RIVER (STUDY TOUR)

List of Participants

Class : BSc II Sem IV

Date: 18/03/2023

S.N.	Name	Signature
1	KALE SAMIKSHA SANTOSH	SS Kale
2	NAGANI AQSA PARVEZ	AP. Nagani
3	SONTAKKE SHUBHAM NIRANJAN	Am
4	ADANE SUSHIL SUNIL	Guru
5	JADHAO SHRADDHA DEVANAND	S. D. Jadhao
6	RATHOD ABHAY VILAS	Abhay Rathod
7	SONTAKKE SONALI ARUN	S. A. Sontakke
8	PATIL DIKSHA SURESH	SS Patil
9	BHOYAR VAISHNAVI DIGAMBAR	V.D. Bhojar
10	SHEIKH NAMIRA MUKHTAR	N.M. SK.
11	JADHAV RUTIKA RAVI	R. R. Jadhav
12	RATHOD ARATI KAILAS	A. K. Rathod
13	MARBATE ANKIT RAMESH	Am
14	CHAVHAN PAYAL DILIP	PD Chavhan
15	LOHAKARE MOHINI VILAS	M. V. Lohakare
16	GADDAMWAR RENU SUNIL	R. Gaddamwar
17	POHEKAR GAURI SHAILESH	P. P. Pekar
18	AZIZ SAMINA PARVEEN SHAIKH	Samina

Head
Department of Zoology
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College,
Arni, Dist-Yavatmal.

Project on

**Study of Plant Pathology of Local Crop Plants
from Arni Tehsil District Yavatmal**

Submitted to

Department of Botany,
Late Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R.
Bharti Science College, Arni Dist.Yavatmal



*As a curriculum part of SGB Amravati University, Amravati
B.Sc. I (Semester-I) Syllabus : Skill Enhancement Module (SEM)*

Submitted By

Mr. / Ku. Kanishma Parveen SK Wabab

B.Sc. I (Semester-I)

Under the Guidance of

Mr. A. S. Muneshwar

Assistant Professor

Department of Botany,

Late R.Bharti Arts, Comm. & Smt. S.R.Bharti Sci. College, Arni.

Session: 2022-23

Shri Datta Prasadik Shikshan Prasarak Mandal's

DEPARTMENT OF BOTANY

**Late Rajkamalji Bharti Arts, Commerce and Smt. Sushilabai R. Bharti Science
College, Arni Dist. Yavatmal**



CERTIFICATE

This is to certify that the project work entitled **"Study of Plant Pathology of Local Crop Plants from Arni Tehsil District Yavatmal"** submitted by Mr./Ku. Karishma Parveen Shaikh Wabab which is being submitted to Department Botany, Late R. Bharti Arts, Commerce & Smt. S. R. Bharti Science College, Arni is a record of bonafied work (Skill Enhancement Module) carried out by him / her under my guidance and supervision.

Date: 14/10/2022

Place: Arni




Assistant Professor
Signature of Supervisor
Late R. Bharti Arts, Comm. &
Smt. S. R. Bharti Sci. College, Arni.

Name :- Karishma Parveen Shaikh Wahab

Std. :- B.Sc - I

Subject :- Botany (Project)

College :- Late Rajkamalji Bharti Art's Com.
And

Smt. Sushilabai R. Bharti Sci. College
Arni, Dist. Yavatmal

Cotton & Soybean Fungal Disease

• Content •

1. Name of disease.
2. Host plant
3. Introduction.
4. Location.
5. diagram
6. Identification / Symptoms
7. preventive measure / Biological control
8. Reference
9. List of fungicide disease.

COTTON FUNGAL DISEASE

Cotton

* cercospora leaf spot of cotton *

The disease affects mainly older leaves of mature plants. Reddish lesions will appear on these leaves during the early stages of the infection. As the disease progresses, the lesions enlarge and turn white to light brown or gray in centre with a purple, dark brown or blackish margin. This disease is caused by a fungus of the cercospora leaf spot from other foliar disease, such as target spot.

However the specificity of this disease lies in the fact that it is often found in cotton plants. Undergoing episodes of stress such as drought or nutrient deficiency. (Mainly potassium). Maintaining plant vigour by having a proper fertilization scheme and preventing drought stress. Through proper irrigation helps to delay primary infections significantly.

COTTON

*Name of fungal disease :- cercospora leaf spot

*Host plant

:- cotton plant

*Common Name

:- cotton

*Botanical name

:- Gossypium herbaceum

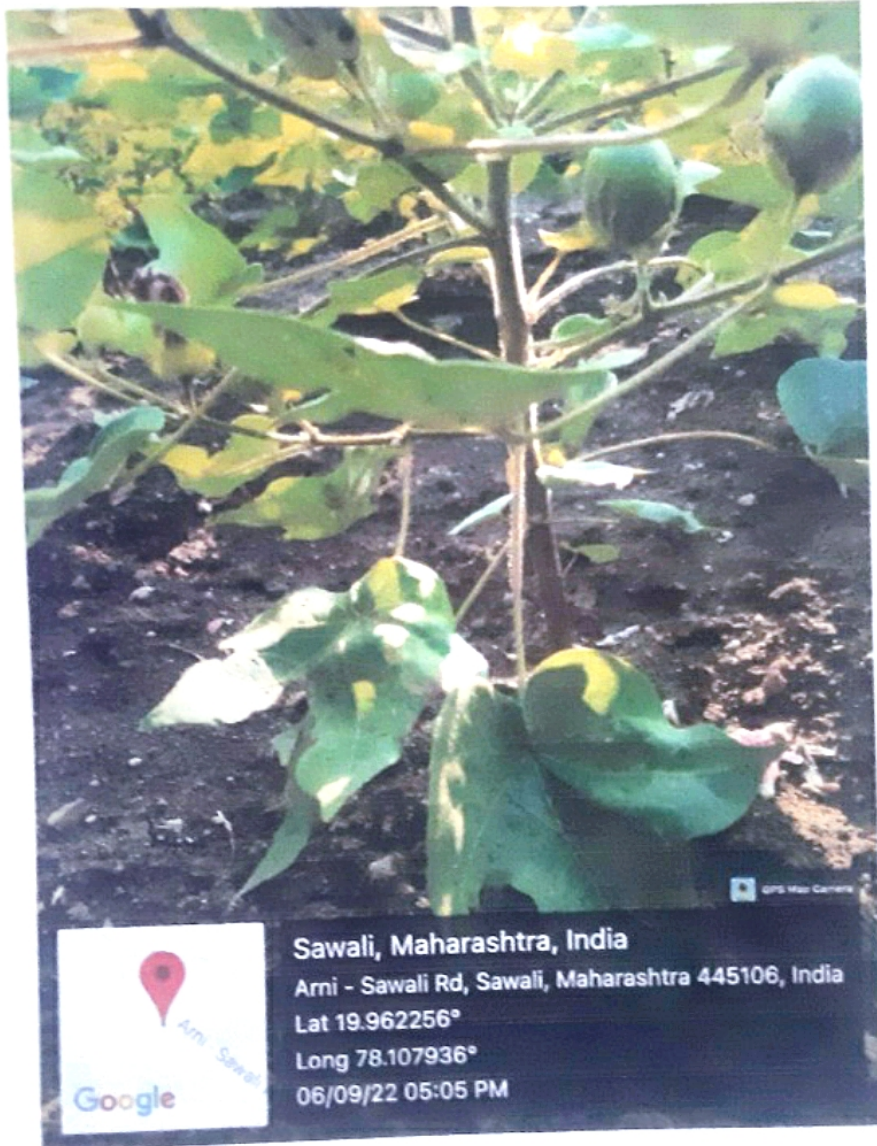
* Introduction of Cotton :-

cotton is a soft, fluffy staple fiber that grows in boll, or protective capsule, around the seeds of cotton plants of the genus Gossypium. The fiber is almost pure cellulose. Under natural conditions, the cotton bolls will tend to increase the dispersion of the seeds.

The plant is a shrub native to tropical and subtropical regions around the world, including the Americas, Africa, and India. The greatest diversity of wild cotton species is found in Mexico followed by Australia and Africa. cotton was independently domesticated in the old and new worlds.

cotton is the King of fibers, usually referred as white gold. Current estimates for world production are about 25 million tones annually. china is the world's largest producer of cotton.

-ô Location ô-



cercospora leaf spot of cotton



Cercospora leaf spot of cotton

* Diagram



Dia. cercospora leaf spot of cotton

* Identification / Symptoms of Fungal Diseases in cotton

1. Symptoms of cercospora leaf spot first appears as individual, circular spots that are tan to light brown with reddish purple borders.
2. As the disease progresses, individual spots coalesce.
3. Heavily infected leaves first become yellow and eventually turn brown and necrotic.
4. Blighted leaves soon collapse and fall to the ground, but remain attached to the crown.
5. Wilting of cotyledons and seedling leaves.
6. Wilting is usually gradual but may be pronounced after a heavy rain.
7. Affected plants are first darker green and stunted followed by yellowing of the leaves and loss of foliage.
8. Older plants exhibit symptoms of wilting and leaf chlorosis.
9. If the infection is severe plants become stunted and may be killed.
10. This disease is usually associated with nutrient - deficient or stressed cotton.
11. The lesions are circular or irregular in shape and vary in size depending on the time of infection.
12. Affected leaves eventually become pale in color and finally fall off.

* Preventive Measure For Fungal Diseases in cotton

1. Use resistant or tolerant varieties, if available.
2. Regularly monitor the field for symptoms of the disease.
3. Remove and destroy affected plant and destroy them at a distance from the field.
4. Maintain a balanced fertilization (especially apply potassium) and proper irrigation to reduce plant stress.
5. Remove and destroy plant residues after harvesting by deep burying or burning in distance of the field.
6. Management of fusarium wilt is difficult and most successfully achieved through the use of resistant cultivars and pathogen free cotton seed.
7. Liming soils and using nitrate nitrogen fertilizers have been effective for management of f.
8. Apply increased doses of potash with a balanced dose of nitrogenous and phosphatic fertilizers.
9. Remove and burn the infected plant debris in the soil after deep summer ploughing during June-July. Apply heavy doses of farm yard manure or other organic manures. Follow mixed cropping with non-host plants.

* Reference :-

1. Mehrotra, R.S. and Aneja, C.R. (1990).

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2. Dube, H.C. (1990).

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3. Sharma, O.P. (1989).

A Text book of Fungi. Tata McGraw-hill publishing company Limited, New Delhi.

4. Webster, J. and Weber, R. (2007).

Introduction to Fungi. 3 edition. cambridge University Press.

* List of fungicide disease.

1. conydon
2. cotmax
3. Roko
4. Kavach
5. Merivon
6. Saay
7. Nativo
8. Blitox
9. Hexen
10. Amistar
11. Monocil

SOYBEAN FUNGAL DISEASE

Soybean

* Downy mildew of soybean :-

Downy mildew is caused by the fungus-like organism, *peronospora manshurica*. It overwinters in the field as thick-walled resting spores in leaf debris and less often on seeds. The disease is most common after flowering begins. Young leaves are of most susceptibility and infected leaves are often seen on the older soybean plants. May increase in number and decrease is favoured by moderate temperatures (20-22°C) and high humidity.

The Downy mildew fungus overwinters temperature in the field as thick-walled resting spores (oospores) in leaf debris and on seeds. The development of the disease depends mostly on the climate. When humidity drops the downy mildew pathogen will suffer and future disease spread will be avoided in the occurrence of high humidity and consistent rainfall.

SOYBEAN

* Name of fungal disease :- Downy mildew of Soybean

* Host plant

:- Soybean plant

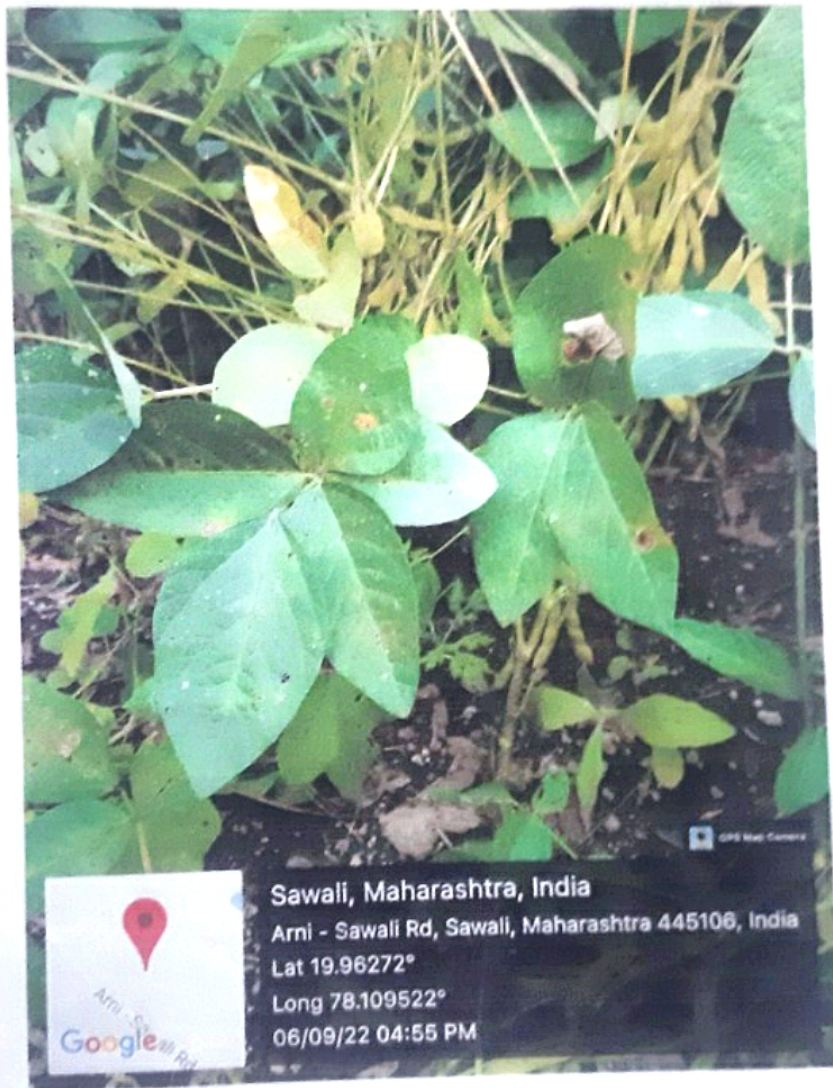
* common name

:- Soybean

* Botanical name

:- Glycine max :

- Location -

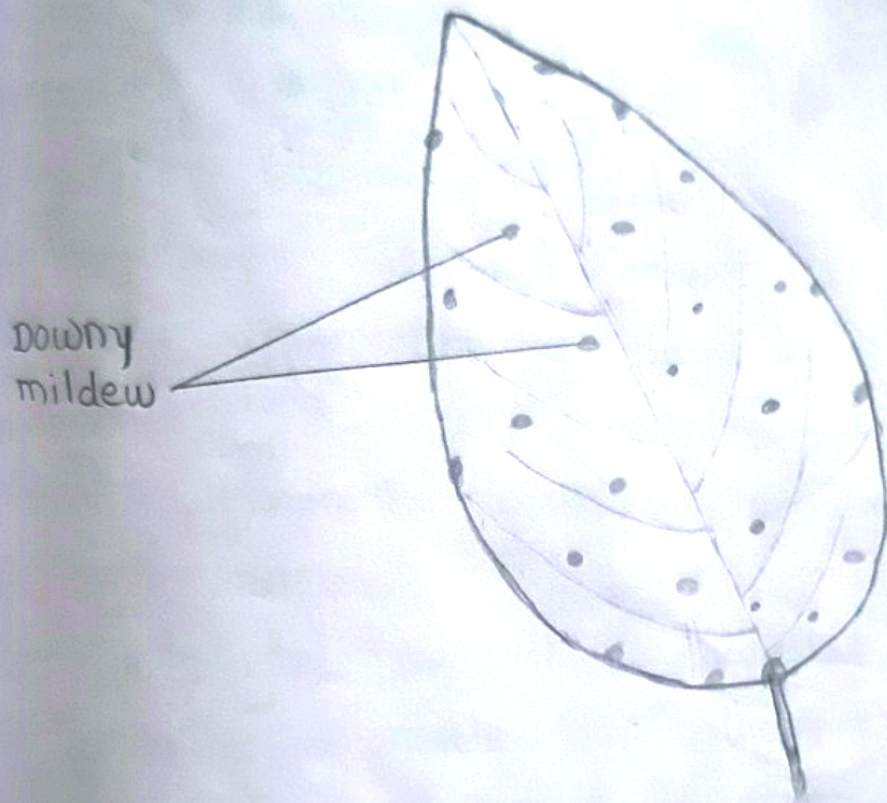


Downy mildew of soybean leaf



Downy mildew of Soybean leaf

*Diagram



Diag:- Downy mildew of Soybean

Symptoms of Fungal Disease in Soybean.

Early symptoms of Downy Mildew occur on young plant but the disease does not develop in a field until the late vegetative or early reproductive stages.

Initially small, irregular, pale yellow spots appear on the upper leaf surface.

Later, they become grey-brown with a yellowish margin. On the lower side of the leaves, the spots have a grey fuzzy appearance due to the presence of the pathogen.

Symptoms frequently occur at low levels throughout the crop canopy.

When pods are infected, an encrusted mass of fungus-like growth is visible inside the pods.

The infected seed has a dull white appearance and is partially or completely encrusted with the fungus. Lesion size and shape depend on the age of the leaf.

Older lesions may turn greyish brown to dark brown with yellow or green margins.

Severely infected leaves turn from yellow to brown and drop prematurely.

* Preventive Measures For Fungal Diseases in Soybean

1. Select robust varieties.
2. Choose well drained and well aerated sites.
3. Do the planting at a greater distance to minimise leaf moisture.
4. Avoid overhead irrigation. Avoid excessive usage of nitrogen-based fertilizers.
5. Weed control should be strictly adhered to use timely initiation of intercrop measures.
6. Use of growth stimulants to strengthen plants use strictly sanitized agricultural machinery and tools.
7. Seed treatment, as well as leaf spraying with *Pseudomonas fluorescens*, can be an effective measure for controlling downy mildew.
8. Seeds treated with this beneficial bacteria increase seedling strength and inhibit sporulation of the downy mildew pathogen.
9. Since the effectiveness is markedly higher, it is recommended to control downy mildew with *P. fluorescens* through seed treatment and leaf spraying.

Reference :-

Mehrotra, R.S. and Aneja, C.R. (1990).

An Introduction To Mycology, Wiley Eastern Ltd. New Delhi.

Dube, H.C. (1990).

Introduction to Fungi. Vikas Pub. House Ltd. New Delhi.

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**Project on Study of local herbal plants in Arni Tehsil
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Submitted to

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Bharti Science College, Arni Dist. Yavatmal**

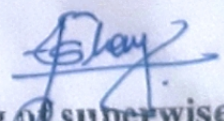
*As a curriculum part of SGB Amravati University, Amravati
B.Sc. I (Semester-II) Syllabus : Skill Enhancement Module (SEM)*

Submitted By

Mr. / Ku. Karishma parveen SK. Wabab

B.Sc. I (Semester-II)

Date. 12/03/2023


Sig. of superwiser

Name :- Karishma Parveen Shaikh Wahab

Class :- B.Sc -I [Sem-II]

Subject :- Botany (Project)

College :- Late Rajkamalji Bharti Art 'S com.
And.

Smt. Shushilabai R. Bharti Sci. college.
Arni, Dist. Navatmal.

Project Topic :-
"Study of Herbal plant in
Arni region"

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3. PERIWINKLE
4. ALOE VERA
5. BAEL
6. PANFUTI
7. KATERI (DHOTRA).
8. THORN Apple
9. SAGARGOTA
10. MUSTURD.

1. NEEM

common Name :- Neem

Botanical Name :- Azadirachta indica

Use part of plant :- Leaves.

* Medicinal Properties :-

1. The neem is helps in increases immunity.
2. And also in moisturises skin.
3. It helps in improving digestion.
4. And oral health.
5. It promotes hair growth.
6. It use in blood purrification.
7. It cures asthma.
8. controls diabetes.
9. Keep skin healthy.
10. Heals ulcers.
11. Reduce fever and it help in inflammation.



2. TULSI

Common Name :- Tulsi (Holy basil).

Botanical Name :- Ocimum sanctum.

Use part of plant :- Leaves, Stem.

* Medicinal Properties :-

1. It helps in combat stress.
2. It helps in lower blood glucose.
3. It has Antibacterial properties.
4. It helps in lower cholesterol.
5. It promotes healthy liver function.
6. It helps in boosts immune system.
7. It also helps in cold and seasonal fluctuation.



13. PERIWINKLE

Common Name :- Periwinkle, Nayun-tara

Botanical Name :- Catharanthus roseus.

Use part of plant :- flower petals & seed.

* Medicinal Properties :-



1. It decreases blood pressure and reduces excitement. It also provides anti-diabetic.
2. It is most effective for the treatment of lung cancer. It is used for the treatment of leukaemia.
3. It has antibacterial & antiviral property.
4. It is also anti-inflammatory in nature.
5. The flower petals and seed have antioxidant property. It cures various skin diseases such as onychomycosis, eczema & dermatitis.
6. It is also useful for the treatment of nose bleeding, gum bleeding as well as treatment of bleeding hemorrhoids. *Catharanthus roseus* is also useful for the treatment of Asthma.

4. ALOE

Common Name :- Aloe

Botanical Name :- Aloe vera

Use part of Plant :- Whole plant

* Medicinal Properties :-

1. Aloe vera, can help inhibit the growth of certain bacteria that can cause infections in humans.
2. A review of 4 experimental studies found that aloe vera could reduce the healing time of burns by around 9 days compared to conventional medication.
3. The evidence for aloe vera helping to heal other types of wounds is inconclusive.
4. Aloe vera acts as a mouth wash by killing the plaque-producing bacterium *Streptococcus mutans* in the mouth, as well as the yeast *Candida albicans*.
5. Studies have convincingly shown that Aloe vera treatment can accelerate the healing of mouth ulcers.
6. Aloe vera has often been used to treat constipation.



5. BAEL

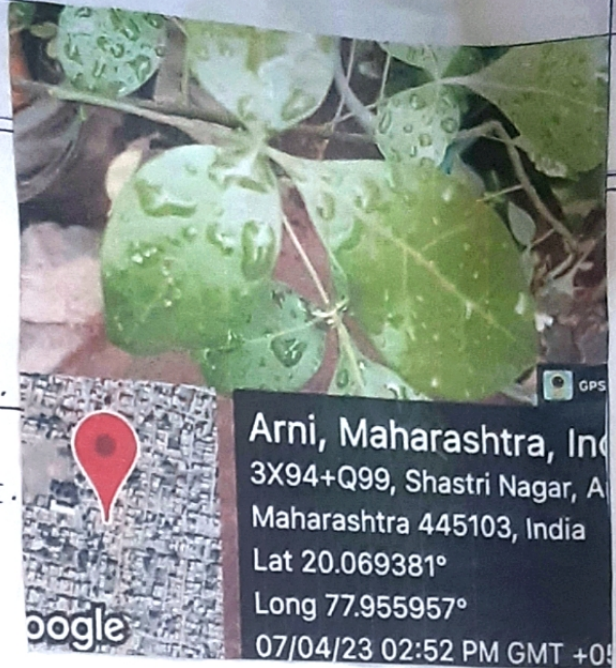
* Common Name :- Bael.

* Botanical Name :- Aegle marmelos.

* Use part of plant :- Fruit, leaf, root.

* Medicinal Properties :-

1. It's is help in control cholesterol.
2. Relieve constipation.
3. Reduce skin rash.
4. Purify blood and removes toxins.
5. Good for diabetic patients.
6. Good Excellent energy booster.
7. The host of plant compounds in bael is beneficial in treating tuberculosis, hepatitis, ulcer and digestive problems.
8. Further more it is also a good source of tannins which aid in treating cholera.



6. PANFUTI

Common Name :- Panyuti

Botanical Name :- Bryophyllum pinnatum.

Use part of plant :- Leaves.

* Medicinal Properties :-

1. This is use for resis, kidney stone.
2. The leaf or it's juice is taken for diabetes.
3. leaf paste application stops bleeding and heals wounds.
4. The burnt leaf (mashi) made in to paste with coconut oil cures burn.
5. The prevent septic to cuts from sharp instrument's 15 leaves with four pepper corns roasted, powdered and mixed in cow ghee is applied.
6. leaf paste boiled in oil cures sciatica and rheumatic pains.
7. one leaf eaten raw with one paper corns first thing every morning for 3 to 7 days cures urinary stones.
8. The leaves can be used raw for making chutneys or tamblis.



7. KATERI (DHOTARA) Flower.

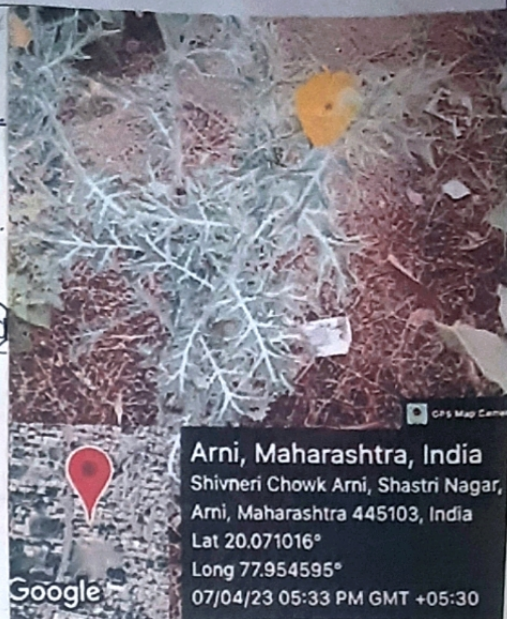
Common Name :- DHOTARA (flower).

Botanical Name :- Argemone Mexicana
Mexican prickly poppy.

Use part of plant :- flower, seed, root.

* Medicinal Properties :-

1. The roots and seeds oil are useful in constipation, flatulence, abdominal colic.
2. Roots are administered in worms.
3. The latex and roots juice are administered in blood impurities.
4. The drug is used in Kushta (skin disease).
5. Latex and juice are used in vishama jwara (re-current fever). burning sensation.
6. Externally the juice, latex, seeds oil and root are applied on swelling and poisoning sting.
7. Application of seed a paste and massage of seed oil is suggested in rheumatic joints and other similar complaints.



8. THORN APPLE

Common Name :- Thorn apple, Datura.

Botanical Name :- (Jimsonweed)
(Datura stramonium).

Use part of plant :- fruit, flower, leaf.



* Medicinal Properties :-

1. The leaves of *D. stramonium* are used for the relief headache and vapour of leaf infusion is used to relieve the pain of rheumatism and gout.
2. The smoke from the burning leaf is inhaled for the relief of asthma and bronchitis.
3. The fruit juice is applied to the scalp for the treatment of falling hair and dandruff.
4. It is also applied to smooth painful wounds and sores.
5. seeds and leaves of *D. stramonium* were used to sedate hysterical and psychotic patients, also to treat insomnia.
6. It is also used to relax the smooth muscles, of the bronchial tube and asthmatic bronchial spasm.
7. *D. stramonium* is used internally to treat madness.

9. SAGARGOTA , BONDUC NUT.

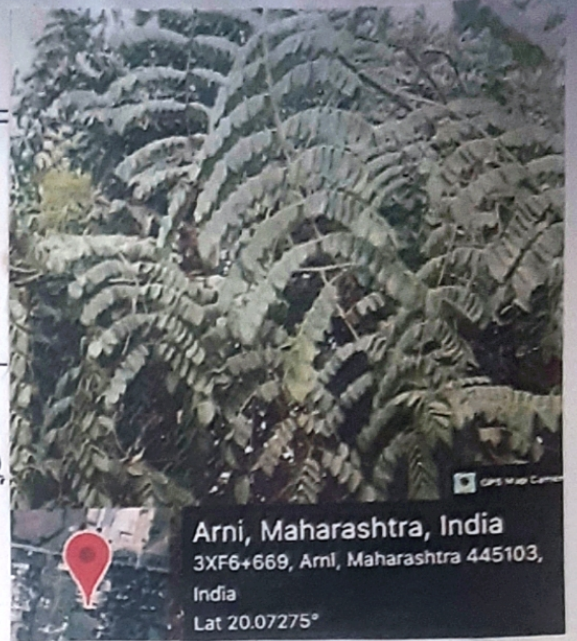
Common Name :- Sagargota.

Botanical Name :- Coesalpinia bonduc.

Use part of plant :- Roots, leaves & seed.

* Medicinal properties :-

1. Root in dysentery and diabetes.
2. Leaves in emmenagogue.
3. Seed use in Abortifacient used as anti malarial drug and also tonic.
4. Sagargota supports to alleviate fever signs like body pain.
5. Helps to reduce edema / swelling in the body, joint inflammation and abdominal pain.



Arni, Maharashtra, India
3XF6+669, Arni, Maharashtra 445103,
India
Lat 20.07275°

10. MUSTURD

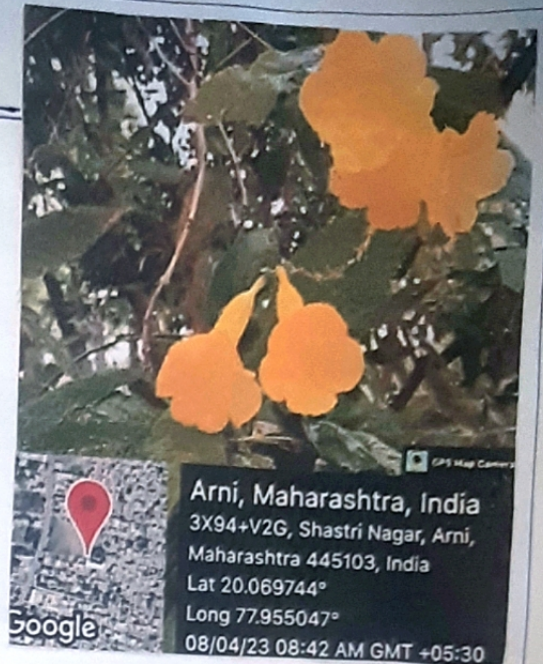
Common Name :- RAI (raya).

Botanical Name:- Brassica.

Use part of Plant :- seed.

* Medicinal Properties :-

1. The yellow mustard seeds are rich in vitamins. Poly nutrients and minerals.
2. The mustard seeds are rich in selenium that has immense anti-inflammatory properties.
3. They are also rich in magnesium and that help in reducing the severity of asthma attacks.
4. Symptoms of rheumatoid arthritis.
5. lowering blood pressure.
6. Mustard seeds are great for digestion as they enhance the metabolism of the body.



* References *

1. Some herbal remedies used by the tribals of Nashik District, Maharashtra. [M.V. Patil and D.A. Patil.]
2. Medicinal plants survey in Indapur Tahasil of Pune, District Maharashtra India. [Torane S.N. Shete. R. Spawar.]
3. Exotic medicinal plants from west Vidarbha. [S.P. Rothe].
4. Some Ethnomedicinal plants from Amravati District (M.S.) India. [P.A. Dhote, ² P.Y. Bhogankar & V.N. Chavhan]
5. Studies on herbal medicinal plants in Marathwada region (MS) India. [Ladda R.G. Aradwad ¹ R² and Ambhore IS³]
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8. Indian medicinal plants. A guide to Ayurvedic Herbal medicine. [Dr. Prakash Paranjpe.]
9. Exotic medicinal plants from west Vidarbha region of Maharashtra - II [S.P. Rothe].
10. Glossary of Indian medicinal / herbal plants, [R.N. Chopra, S.L. Nayar.]

FIELD COLLECTION AND SAMPLING

STUDY TOUR REPORT



“ARUNAVATI RIVER”



DEPARTMENT OF ZOOLOGY

Late Rajkamalji Bharti Arts, Commerce, and
Smt. Sushilabai R. Bharti Science College, Arni
(2021-2022)

FIELD COLLECTION AND SAMPLING

STUDY TOUR REPORT

FIELD COLLECTION AND SAMPLING STUDY TOUR REPORT ARUNAVATI RIVER (11/03/2022)

In the Second session of year 2021-22 the **Zoology Department** of Late Rajkamalji Bharti Arts, Commerce & Smt. Sushilabai R. Bharti Science College Arni, Dist. Yavatmal, as per the curriculum activity of B.Sc. IInd Year (Sem -IV) practical Syllabus, the Department of Zoology has organized Field collection and sampling study tour at Arunavati river near “Mahadev Mandir”, Arni and behind the completion and success there are lots of people who made this possible with their valuable guidance and constant support.

A Field collection and sampling study tour is a course combined activity designed to introduce students with sampling in river.

Hence, 20 students of BscIInd (Sem-IV) with 2 professors and one Laboratory attendant arranged a study tour. Inclusion of study tour in our academic curriculum plays a crucial role providing an opportunity to students to execute and enhance their skills, knowledge and competencies with self-development and actualization to be professional in the future with varied knowledge about different organizations and to listen to eminent personalities of those sectors and gain as much knowledge of all working fields should be inculcated in the structure of the educational tour as well as to develop group living and team work which will lead them to any success which is necessary for the students throughout their life.

Arunavati river near Mahadev Mandir, Arni located 1.3 kilometers away from Arni, is one of the sampling stations for a Field collection and sampling study tour.


Head
Department of Zoology
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College,
Arni, Dist. Yavatmal


Principal
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College
Arni, Dist. Yavatmal



Professor while boosting knowledge of students.



Boy Students of BSc IInd collecting Zooplanktons.



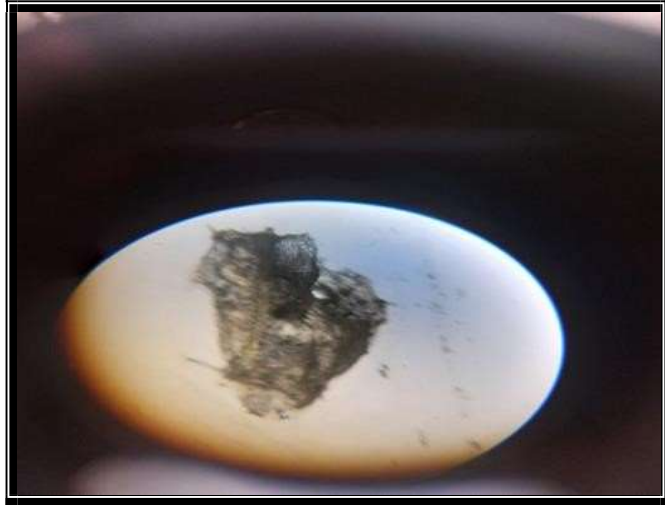
Girl Student of BSc IInd collecting Zooplanktons.

After coming back to college Student had observed that water sample in laboratory under Microscope.

Some examples of zooplanktons that students had observed under Microscope are as follows,



Name of plankton



Name of plankton



Name of plankton



Name of plankton



LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI
R. BHARTI SCIENCE COLLEGE, ARNI, DIST-YAVATMAL
DEPARTMENT OF ZOOLOGY

2021-22

NAME OF ACTIVITY: FIELD COLLECTION AND SAMPLING OF WATER FROM ARUNAVATI RIVER (STUDY TOUR)

List of Participants

Class : BSc II Sem IV

Date: 11/03/2022

S.N.	Name	Signature
1	HARSULKAR SANKET GAJANAN	S.G. Harsulkar
2	CHOPADE KU. TANVI RAVINDRA	T.R. Chopade
3	CHANGOLE KU. DEVYANI SURESHRAO	D. Changle
4	RATNE KU. DHARATI PRAKASH	D.P. Ratne
5	RATHOD KU. PRATIKSHA PRAKASH	P.R. Rathod
6	RATHOD KU. SAKSHI SANJAY	S.S. Rathod
7	LOHAKARE KU. NEHA VILAS	N.V. Lohakare
8	GURGUDE KU. VAIBHAVI MOHAN	V.M. Gurgude
9	CHAVHAN KU. RIDDHI RAMESH	R. Chavhan
10	WASARWAD KU. SHREYA DAMUANNA	S. Wasarwad
11	DEOTALE KU. SHUSHMA GAUTAM	S. Deotale
12	DAKE KU. AKANKSHA SHANKAR	A.S. Dake
13	WANKHADE KU. PRATIKSHA MAROTI	P.M. Wankhade
14	NEWARE KU. TEJASWINI SURESH	T.B. Neware
15	BUKKAWAR KU. BHAGYASHRI RAJESH	B.R. Bukkavar
16	SAYYAD DANISH ZAKIR	D. Sayyad
17	JADHAO KU. SAYALI RAMCHANDRA	J.R. Jadhao
18	RATHOD KU. NEHA SAHEBRAO	N.S. Rathod
19	KHATARE SADANAND GAJANAN	S.G. Khatare
20	KHAN KU. SUFIYAN ASLAM	S.A. Khan

Head

Department of Zoology
Late R. Bharti Arts, Com &
Smt. S.R. Bharti Sci. College,
Arni, Dist-Yavatmal.



FIELD COLLECTION AND SAMPLING
STUDY TOUR REPORT



“ARUNAVATI RIVER”

2019-2020

DEPARTMENT OF ZOOLOGY

*Late Rajkamalji Bharti Arts, Commerce, and
Smt. Sushilabai R. Bharti Science College, Arni*
FIELD COLLECTION AND SAMPLING

STUDY TOUR REPORT

FIELD COLLECTION AND SAMPLING STUDY TOUR REPORT ARUNAVATI RIVER (24/01/2020)

In the Second session of year 2019-20 the **Zoology Department** of Late Rajkamalji Bharti Arts,Comm. & Smt.Sushilabai R.Bharti Science College Arni, Dist.Yavatmal , as per the curriculum activity of B.Sc. IInd Year (Sem -IV) practical Syllabus, the Department of Zoology has organized Field collection and sampling study tour at Arunavati river near “Mahadev Mandir”,Arni and behind the completion and success there are lots of people who made this possible with their valuable guidance and constant support.

A Field collection and sampling study tour is a course combined activity designed to introduced students with sampling in river.

Hence,27 students of BscII(Sem-IV) with 2 professors and one Laboratory attendant arrange a study tour. Inclusion of study tour in our academic curriculum plays a crucial role providing an opportunity to students to execute and enhancing their skills knowledge and competencies with self development and actualization to be professional future with varied knowledge about different organization and listen to eminent personalities of so on sectors and gain as much knowledge of all working fields should be inculcate in the structure of the educational tour as well as to develop group living and team work which will lead them to any success which is necessary for the students throughout the life.

Arunavati river near Mahadev Mandir,Arni located 1.3 kilometers away from Arni, is one of the sampling station for a Field collection and sampling study tour.


Head
Department of Zoology
Late R.Bharti Arts, Com. &
Smt.S.R Bharti Sci. College,
Arni, Dist-Yavatmal


Principal
Late R.Bharti Arts, Com. &
Smt.S.R.Bharti Sci.College
Arni, Dist.Yavatmal



_Students of BSc II collecting water sample



Students of BSc II collecting zooplanktons



Students of BSc II observing recreational activity near river side



Boys Students of BSc II collecting water sample





**LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI
R. BHARTI SCIENCE COLLEGE, ARNI, DIST-YAVATMAL
DEPARTMENT OF ZOOLOGY (2019-20)**

NAME OF ACTIVITY: FIELD COLLECTION AND SAMPLING OF WATER FROM ARUNAVATI RIVER (STUDY TOUR)

List of Participants

Class : BSc II Sem IV

Date: 24/01/2020

S.N.	Name	Signature
1	PAWADE KU. PALLAVI SURESH	
2	BHARNE KU. PALLAVI DILIP	
3	KHODANKAR KU. DIPALI BABARAO	
4	JADHAV RAHUL GOVIND	
5	CHAVHAN KU. PUJA PARASHARAM	
6	JADHAO KU. RAGINI DEVANAND	
7	CHAVHAN KU. PALLAVI JAYSING	
8	PACHKHANDE KU. KOMAL RAJU	
9	GAYAKWAD KU. SAMIKSHA SUDHAKAR	
10	GABHANE KARTIK DILIP	
11	CHAVHAN KU. RAVINA ISHWAR	
12	KUTE KU. VAISHNAVI SHANKAR	
13	GAWAI DHAMMDIP DEVIDAS	
14	JADHAV ISHWAR ULHAS	
15	MANDAWKAR BHUSHAN GOVINDRAO	
16	RATHOD VIJAY SADASHIV	
17	SHEIKH KU. FIZA SHARIF	
18	PAWAR KU. VAISHNAVI VISHNU	
19	LAD YASH VIJAY	
20	KHAN KU. SHIFA ARIF	
21	MUNDHE KU. TEJASWINI GAJANAN	
22	WANKHADE KU. MAHESHWREE SURESH	
23	INGOLE KU. AYUSHI PRAVIN	
24	PAWADE KU. PALLAVI SURESH	
25	BHARNE KU. PALLAVI DILIP	
26	KHODANKAR KU. DIPALI BABARAO	
27	JADHAV RAHUL GOVIND	

Head

Department of Zoology
Late R. Bharti Arts, Com. &
Smt. S. R. Bharti Sci. College,
Arni, Dist-Yavatmal

Shri Datta Prasadik Shikshan Prasarak Mandal's
Late Rajkamalji Bharti Arts, Commerce And Smt. Sushilabai R. Bharti Science
College, Arni

DEPARTMENT OF BOTANY



CERTIFICATE

This to to certify that the project work entitled "**Studies on locally available medicinal plants from Arni Tehsil District Yavatmal**" submitted by **MISS.Pooja Ganpatsingh Rajpurohit** which is being submitted to Department of Botany, Late R. Bharti Arts, Commerce & Smt. S. R. Bharti Science College, Arni is a record of bonafied research work carried out by her under my guidance and supervision.

Signature of Supervisor



Head

Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S. R. Bharti Sci. College, Arni

Date: 03/11/2018

Place: Arni

Project on
studies on locally available medicinal plants from Arni
Tehsil District Yavatmal

Submitted to
Department of Botany,
Late Rajkamalji Bharti Arts, Commerce And Smt. Sushilabai R.
Bharti Science College, Arni

As a curriculum part of SGB Amravati University, Amravati
B.Sc. II (Semester-III) Syllabus for Internal Assessment Marks

Submitted by
Miss. Pooja Ganpatsingh Rajpurohit
B.Sc. II (Semester-III)

Under the Guidance of
Dr. M. R. Kakpure
Assistant Professor and Head,
Department of Botany,
Late R. Bharti Arts, Comm. & Smt. S. R. Bharti Science College, Arni

Session: 2018-19

**LATE RAJKAMALJI BHARTI ARTS, COMMERCE & SMT
SUSHILABAI R. BHARTI SCIENCE COLLEGE ARNI
DEPARTMENT OF BOTANY**



CERTIFICATE

This is to certify that the project work entitled "**Floristic survey of some locally available ornamental plants from college campus**" submitted by **Ku.Ayushi Pravin Ingole** which is being submitted to Department Botany, Late R. Bharti Arts, Commerce & Smt. S. R. Bharti Science College, Arni is record of bonafied research work carried out by his under my guidance and supervision.

Date: 23 /10 /2019

Place : Arni



Signature of Supervisor

Head
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S. R. Bharti Sci. College, Arni

Project on

Floristic survey of some locally available ornamental plants from college campus

*As a curriculum part of SGB Amravati University, Amravati
B.Sc. II (Semester-III) Syllabus for Internal Assessment Marks*

Submitted to

Department Of Botany

**Late Rajkamalji Bharti Arts, Commerce & Smt. S.r. Bharati
Science College Arni, Dist, Yavatmal**

Submitted by

Ayushi Pravin Ingole

B.sc. - II (Sem - III)

Under the Guidance of

Dr. M. R. Kakpure Sir

Assistant professor and Head,
Department of botany

Session : 2019-20

LATE RAJKAMALJI BHARTI ARTS, COMMERCE & SMT
SUSHILABAI R. BHARTI SCIENCE COLLEGE ARNI
DEPARMENT OF BOTANY



CERTIFICATE

This is to certify that the project work entitled **"Taxanomic studies of some members of family Lamiaceae "** submitted by **Ku.Pallavi Dilip Bharne** which is being submitted to Department Botany, Late R. Bharti Arts, Commerce & Smt. S. R. Bharti Science College, Arni is record of bonafied research work carried out by his under my guidance and supervision.

Date: 23 /10 /2019

Place : Arni



Signature of Supervisor

Head
Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S. R. Bharti Sci. College, Arni

Project on

Taxonomic studies of some members of family Lamiaceae

Submitted to

Department of Botany,

Late Rajkamalji Bharthi Arts, Commerce and Smt.Sushilabai R.

Bharthi Science College, Arni Dist.Yavatmal.

As a curriculum part of SGB Amravati University, Amravati

B.Sc.II (Semester-III) Syllabus for Internal Assesment Marks

Submitted by

Miss. Pallavi Dilip Bharne

B.sc-II (Semester-III)

Under the Guidance of

Dr. M. R. Kakpure Sir

Assistant Professor and Head,

Department of Botany,

Late R. Bharti Arts, Comm. & Smt. S. R. Bharti Sci. College, Arni.

Session: 2019-2020(winter)

LATE RAJKAMALJI BHARATI ART'S, COMMERCE & SMT
SUSHILABAI R. BHARATI SCIENCE COLLEGE, ARNI

DEPARTMENT OF BOTANY



CERTIFICATE

This is to certify that the project entitled **“Morphological and Anatomical adaptations of xerophytic plants available in college campus** which is being submitted to Department of Botany, Late Rajkamalji Bharati Arts, commerce and Smt. Sushilabai R. Bharati Science College, Arni is record to bonafied research work carried out by her under my guidance and supervision.

Signature of Supervision

Submitted by,

Ku. Puja P. Chavhan

Ku. Komal R. Pachkhande

Ku. Pallavi J. Chavhan

Ku. Ravina I. Chavhan



(Signature)
Head

Department of Botany
Late R. Bharti Arts, Comm. &
Smt. S.R. Bharti Sci. College, Arni

Date : 13/10/ 2019

Place : Arni

Project On

**MORPHOLOGICAL AND ANATOMICAL ADAPTATIONS IN XEROPHYTIC
PLANTS AVAILABLE IN COLLEGE CAMPUS**

Submitted to,

Department of Botany

Late. R. B. Arts, Commerce and Smt. S. R.B. Science College, Arni Dist. Yavatmal

*As a curriculum part of SGB Amravati University Amravati B.Sc. II (Sem III) syllabus for
Internal Assessment of Marks*

Submitted by,

Ku. Puja P. Chavhan

Ku. Komal R. Pachkhane

Ku. Pallavi J. Chavhan

Ku. Ravina I. Chavhan

B.Sc. II (Sem III)

Under the Guidance of

Dr. M. R. Kakpure
Assistant Professor and Head
Department of Botany

Session: 2019-20

Date: 26/7/2019

Place: Arni

FIELD COLLECTION AND SAMPLING

STUDY TOUR REPORT



“ARUNAVATI RIVER”

2018-2019

DEPARTMENT OF ZOOLOGY

*Late Rajkumar Bharti Arts, Commerce, and
Smt. Sushilabai R. Bharti Science College, Arni*
FIELD COLLECTION AND SAMPLING

STUDY TOUR REPORT

FIELD COLLECTION AND SAMPLING STUDY TOUR REPORT

ARUNAVATI RIVER

(09/03/2019)

In the Second session of year 2018-19 the **Zoology Department** of Late Rajkamalji Bharti Arts,Comm. & Smt.Sushilabai R.Bharti Science College Arni, Dist.Yavatmal , as per the curriculum activity of B.Sc. IInd Year (Sem -IV) practical Syllabus, the Department of Zoology has organized Field collection and sampling study tour at Arunavati river near “Mahadev Mandir”,Arni and behind the completion and success there are lots of people who made this possible with their valuable guidance and constant support.

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Hence,32 students of BscII(Sem-IV) with 2 professors and one Laboratory attendant arrange a study tour. Inclusion of study tour in our academic curriculum plays a crucial role providing an opportunity to students to execute and enhancing their skills knowledge and competencies with self development and actualization to be professional future with varied knowledge about different organization and listen to eminent personalities of so on sectors and gain as much knowledge of all working fields should be inculcate in the structure of the educational tour as well as to develop group living and team work which will lead them to any success which is necessary for the students throughout the life.

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 Head Department of Zoology Late R.Bharti Arts, Com. & Smt. S.R.Bharti Sci. College, Arni, Dist-Yavatmal	 Principal Late R.Bharti Arts, Com. & Smt. S.R.Bharti Sci.College Arni, Dist.Yavatmal
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Arunavati river spot of nirmalya visarjan



Girl Students of BSc III collecting zooplanktons



Students of Bsc II observing recreational activity near river side



Boys Students of BSc III collecting zooplanktons



LATE RAJKAMALJI BHARTI ARTS, COMMERCE AND SMT. SUSHILABAI
R. BHARTI SCIENCE COLLEGE, ARNI, DIST-YAVATMAL

DEPARTMENT OF ZOOLOGY (2018-19)

NAME OF ACTIVITY: FIELD COLLECTION AND SAMPLING OF WATER FROM ARUNAVATI RIVER (STUDY TOUR)

List of Participants

Class : BSc II Sem IV

Date: 09/03/2019

S.N.	Name	Signature
1	PILLEWAR SWAPNIL SUDHAKARRAO	S.S. Pillenar
2	UIKE PAVAN MOHAN	P.M. Uike
3	DIWANE TUSHAR ARUN	T.A. Diwane
4	NAKHATE KUNAL RAMBAUJI	K.R. Nakhate
5	DUGAD POOJA RAJENDRA	P. Dugad
6	TUPE PAYAL SHESHARAO	P. S. Tupe
7	KATKAR SAKSHI RAJENDRA	S. Katkar
8	BOMPILWAR KIRTI SHAILESH	K.S. Bompilwar
9	KALE ASHWINI RAMDAS	A.P. Kale
10	THAKARE DAMINI DILIP	D. Thakare
11	KUDMATE SONALI AMBADAS	S.A. Kudmate
12	JAGTAP ASHWINI MOTIRAM	A.M. Jagtap
13	MANGAM NAMRATA LINGAJI	N. Mangam
14	ADIYA KAUSAR SYED ANIS	Adiya Sayyed
15	SHAL AARJU NARENDRA	Aarju Shal
16	WANKHADE SHIVANI KAILAS	S.K. Wankhade
17	GAWANDE PAYAL SANJAY	P.S. Gawande
18	KADAO SHRUTI SANDIP	S.S. Kadau
19	RATHOD PRATIKSHA MANIRAM	P.M. Rathod
20	MAKODE VRUSHALI DATTATRAY	V.D. Makode
21	RAJPUROHIT POOJA GANPATSINGH	P.G. Rajpurohit
22	BOMPILWAR DIPA SANTOSH	D.S. Bompilwar
23	MANTRI WAD VAISHNAVI RADHESHYAM	V. Mantri
24	ADE MANISHA DARASING	M.D. Ade
25	RAWATE SNEHA BHAGWAT	S. Rawate
26	NIMBALKAR PRATIKSHA BHARAT	P.B. Nimbalkar
27	GOMASE ANKITA SHANKAR	A. Gomase
28	RAUT SHUBHANGI NARENDRA	S.N. Raut
29	KAMBLE VIVEK NARENDRA	V.R. Kamble
30	MORE ANANYA VISHWAMBAR	A. More
31	KEWAT NAMRATA TUKARAM	N. Kewat
32	CHAVHAN MEGHANA RAMESH	M.R. Chavhan

Head

Department of Zoology
Late R. Bharti Arts, Com &
Smt. S.R. Bharti Sci. College,
Arni, Dist-Yavatmal.

